



Tribology and
Petroleum Test
Equipment for
Over 80 Years

Falex Corporation
1020 Airpark Drive
Sugar Grove, IL 60554 U.S.A.
Phone: (630) 556-3669
Fax: (630) 556-3679
E-mail: lab@falex.com
Website: www.falex.com

Falex Tribology N.V.
Rotselaar, Belgium

Company: **AmberTech**
Date: January 18, 2012
Technician: M Rapp

Page: 1
Project No. 12-03
Test No. 1908156
Test Date: January 17, 2012

Method: ASTM D5183, Determination of the Coefficient of Friction of Lubricants

Machine: Falex Four-Ball Wear Test Machine
Serial No. 221-7-87-VD

TEST PARAMETERS		
	Break-In	Test
Speed (rpm):	600 (±25)	600 (±25)
Temperature (°C):	75 (±1.7)	75 (±1.7)
Load (kgf):	40 (±0.2)	Steps of 10
Duration (min):	60 (±1.0)	Intervals of 10
Lubricant ID:	Light Mineral Oil	AmberTech Concentrate
Falex TL No.	4991	4128

TEST SPECIMENS	
Ball Material:	AISI-E52100
Hardness (Rc):	64-66
Grade:	25EP
Falex Lot No.	150

TEST RESULTS							
WEAR DATA				FRICTION DATA			
Break-In Scar Diameter (mm)		Load (kg)			Friction (g)		CoF
Axis	Ball 1	Ball 2	Ball 3				
X	0.694	0.697	0.697	10	23.8	0.039	
Y	0.698	0.704	0.708	20	33.8	0.028	
AVERAGE BREAK-IN SCAR DIAMETER:			0.700	30	60.5	0.034	
Test Scar Diameter (mm)		Load (kg)			Friction (g)		CoF
Axis	Ball 1	Ball 2	Ball 3				
X	1.008	1.008	1.015	40	129.6	0.056	
Y	1.028	1.030	1.039	50	305.8	0.103	
AVERAGE TEST SCAR DIAMETER:			1.021	60	361.5	0.103	
				70	432.8	0.105	
				80	477.7	0.101	
				90	528.6	0.100	
				100	541.3	0.091	
				110	536.3	0.083	
				120	577.4	0.082	
FAILURE LOAD:						No Failure	

COMMENTS:

AmberTech Project 12-03 Test No. 1908156
Lubricant: AmberTech Concentrate TL No. 4128
ASTM D5183

